

CLAIMS

[0020] What is claimed is:

1. A plasma discharge device comprising:

A. Two discharge chambers, each containing ionisable gas mixtures, stacked vertically on top of each other.

B. A central electrode disposed adjacent to or protruding in the discharge region

C. Electrical means of ionizing the gas, said means being electrically coupled to including a power supply, said power supply comprising a battery, an oscillator and flyback transformer.

D. Means for increasing the capacitance in specific regions of the discharge chambers in the form of circular tracks depressed into the dielectric structural walls.

E. Means for converging the luminous discharge at a specific point including electrode assemblies fitted into the tracks, said electrodes being electrically biased out of phase with respect to central electrode.

F. Means for moving the grounding electrode assemblies along their respective tracks including a mechanical mechanism.

2. A plasma discharge device according to claim 1 wherein said discharge chambers each comprise of two annular members, said members are sandwiched between two substantially flat circular dielectric plates.

3. A plasma discharge device according to claim 1 wherein said electrode assemblies each comprises of two carbon brush members, said carbon brush members are electrically coupled to each other through suitable wire means. Said carbon brush and said wire are contained in a

housing, said housing is formed on an internal gear, said internal gear is anchored and pivoted on a bearing means, bearing means being adhesively connected to a case.

4. A plasma discharge device according to claim 1 wherein one of the said carbon brushes of said electrode assembly is fitted into a groove formed into a peripheral wall of the discharge chamber and the other said carbon brush member is in contact with a conductive ring, said conductive ring is adhesively connected to the said case.

5. A plasma discharge device according to claim 4 wherein said conductive ring is electrically connected to the said power supply.